

Wisconsin Highway Research Program
Request for Proposal FFY 2007: Data Integration Technical Oversight Committee
DATA INTEGRATION AND PARTNERSHIP FOR STATEWIDE
TRANSPORTATION PLANNING

Problem Statement

The planning for transportation programs and projects to meet communities' needs has always been a complex process that involves diverse information about the transportation facilities, the users, and the built, natural, and economic environments. Typically, the information is derived from a wide array of data sources collected and maintained by various custodians. Easy access to comprehensive and high quality data is therefore essential to effective planning practices. This accessibility to good data is especially critical as transportation planning agencies embrace the multi-modal, demand-managing planning approach that aims to address a broad range of community concerns regarding congestion, safety, accessibility, mobility, equity, and environmental quality.

In Wisconsin, the data required to support statewide transportation planning are typically pulled together from multiple WisDOT database systems, such as Meta Manager, HAMS, TUMS, WISLR, TransPortal, and SAMP. Often, data collected and maintained by other state agencies (such as Department of Natural Resources, Department of Administration, and Department of Revenue) and local entities (such as MPOs, transit operators, and school districts) are also needed. Because of the various institutional barriers and the diverse nature, format, and quality of the various data sources, identifying and assembling appropriate data for planning studies has been very challenging and laborious. The lack of data integration and partnership impedes the efficient flow of information, thereby limiting the effectiveness of statewide transportation planning.

Objectives

The overall goal of this research project is to improve data integration and partnership in order to support statewide transportation planning in Wisconsin. The specific objectives of this project include the following:

1. Identify best practices of data integration in other DOTs and internationally and document the steps taken to accomplish them.
2. Identify opportunities and limitations of available data to support statewide planning.
3. Identify current and emerging data needs for better supporting transportation modeling and planning processes.
4. Identify and catalog current custodians, formats, and quality of the needed data along with access information. Work with Project Committee to refine lists of databases to be investigated.

5. Identify technical and institutional barriers to the access and integration of planning-related data.
6. Recommend methodologies for overcoming the barriers to data integration and partnership. Recommendations should include strategies for continued maintenance and upgrade of data.

Deliverables

The following deliverables at a minimum are required for the project:

- Final Research Report and Presentation of Research to the Data Integration Technical Oversight Committee.
- Document to address the requirements of Task 6 through summary of best practices that describes how others have addressed data needs, maintenance of data for specific user groups, and coordination with the organization's IT department.
- Catalogs that include:
 - Inventory of available planning data associated with strategies of the transportation modeling and planning processes.
 - Inventory of data needs/areas of improvement
 - Flowcharts and/or other suitable diagrams documenting the flow of and relationships among data items

Benefits

The findings of this research will help transportation planners and researchers in the state save time and effort needed for identifying and locating the necessary data for planning studies. The recommendations resulting from this project will provide the needed knowledge and guidelines for future enhancement and development of integrated transportation information systems, leading to improved planning decisions.

Estimated Cost and Duration

It is anticipated that this research will be completed in 18 months for a cost not to exceed \$80,000. Time and cost estimates supplied in the research proposals will be evaluated by the TOC as part of the selection criteria. The TOC requires that a draft final report be submitted 3 months prior to the contract completion date to ensure adequate time for revision and review.